Comprehensive Student Profiling in the PIA Accreditation Process offers exciting new Insights and Strategic Direction

Abstract: The Planning Institute Australia's (PIA) re-accreditation process carried out in 2009 represented an important opportunity for the Graduate School of the Environment at Macquarie University to look at the content of its Masters of Environmental Planning program and its relationship to professional planning practice. It also provided an opportunity to examine the profiles of our students (past and present) and ask them about their backgrounds, experiences and aspirations. Thus, a comprehensive effort at student profiling was conducted involving a significant process of data collection and analysis to gather and understand the views and preferences of students. It provided substantial new information on the diversity of student backgrounds and students views of PIA, preferred subjects to study, and methods of teaching. For example results showed that accreditation is considered an important factor in the choices that students make with 78% of current students mentioning PIA's accreditation as an important reason for their selection of the course. This research offers an excellent example of student profiling and program evaluation and the results offer valuable insights for strategic directions in post-graduate planning education with thought provoking implications for PIA.

The Context

Re-accreditation of its Masters of Environmental Planning (M Env Plan) program by the Planning Institute of Australia (PIA) in 2009 represented an important opportunity for the Graduate School of the Environment (GSE) at Macquarie University to look at the content of the program, the characteristics of the students and graduates, and the program's relationship to professional planning practice.

A comprehensive exercise in student profiling was conducted involving a significant process of data collection and analysis to gather and understand the views and preferences of our students – past and present. It also provided an opportunity to ask them about their backgrounds, experiences and aspirations.

Research undertaken

Three related research tasks were completed to inform a number of the PIA Visiting Board Requirements:

1. Analyses of the demographics and study patterns from internal transcripts of students in the University's Student Record data base (AMIS) of:
    a. The M Env Plan graduates from 2003 through 2009; and
    b. The current M Env Plan students enrolled in Semester 1, 2009

These included analyses of students in other GSE postgraduate coursework environmental programs who undertake study in the three 'planning' units.

2. Profiling of current M Env Plan students enrolled in Semester 1, 2009 through completion of a survey questionnaire; 33 of the 35 current students completed the questionnaire.

3. Feedback from the M Env Plan graduates from 2003 through 2009 through completion of a survey questionnaire similar to that used for the current students; 27 of 56 graduates completed the questionnaire[1].

[1] Two of these were received after the closing date; only some of their demographic data is included.

1. Characteristics in the backgrounds of students

The students who undertake the M Env Plan are diverse along several dimensions: disciplinary specialisms from previous study; age on entry; nationality; and professional work experience.

1.1 Previous study

The majority of those who graduated from 2003 through 2009 and currently enrolled M Env Plan students have prior qualifications in science or engineering, with significant proportions with qualifications in environmental / resource management or architecture; Figure 1.

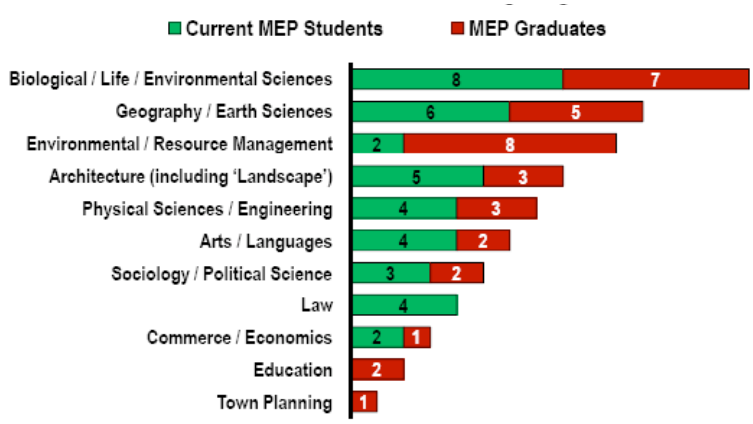


Figure 1
Previous study by graduates from and currently enrolled students in the GSE Master of Environmental Planning

1.2 Age on entry

The majority (59 of 91; 65%) of M Env Plan students (graduates and current) were younger than 30 when they commenced study, and of these most (37 of 59; 41% of total) were younger than 25; there is a larger proportion of older students amongst the current students than has been the case for the graduates over the last seven years; Figure 2.

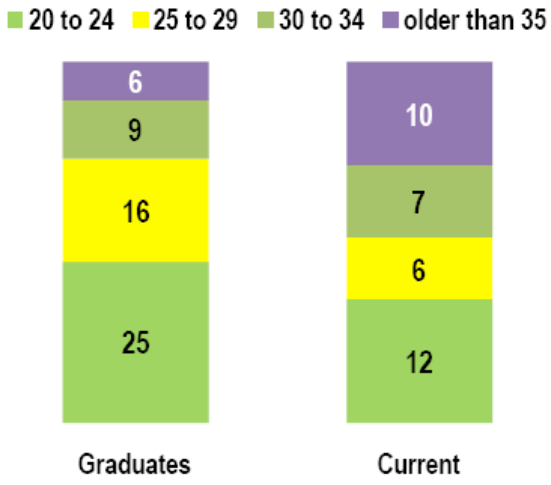
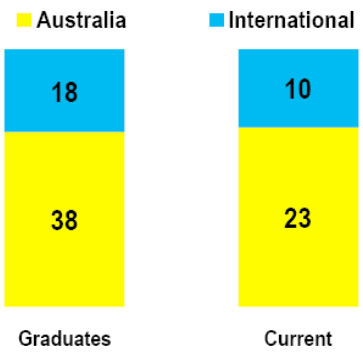


Figure 2
Age distributions on entry of graduates from and currently enrolled students in the GSE Master of Environmental Planning

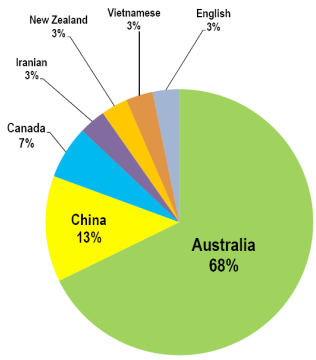
1.3 Nationalities of students

Typically one third of the students in the M Env Plan program are international students; that is they have citizenship in countries other than Australia.[2] The largest group of international students currently enrolled in the M Env Plan is from China; Figure 3.

[2] Some students born overseas have Australian citizenship and some with overseas citizenship have been long term residents in Australia; that is they are not here on a short term student visa.



(a) Numbers of Australian and International students



(b) Proportions of current students

Figure 3
Nationalities on entry of students in the GSE Master of Environmental Planning

1.4 Professional work experience

Almost all of the 27 M Env Plan graduates who completed the survey are in professional planning work and two thirds of the current students are in work although only half of these are now working in planning. Both the graduates and the current students who are working are spread across all sectors of government and the private sector with the two largest groups being in local government and the private sector; Figure 4.

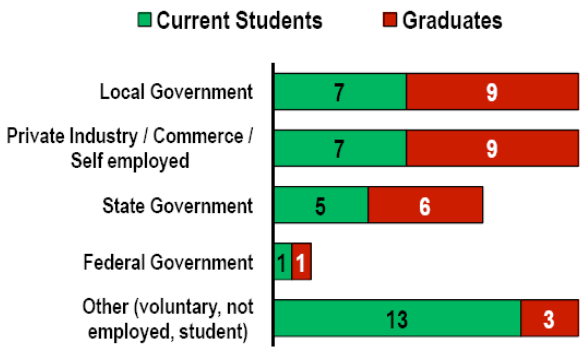


Figure 4
Current employment of students in the Master of Environmental Planning

Even though almost all of the M Env Plan graduates are now working in planning, the majority of these have been only working as planners for 1 to 5 years even if they have been in the workforce for longer than this; Figure 5. This suggests that many of the M Env Plan students are doing the program prior to or having already moved from other work into planning.

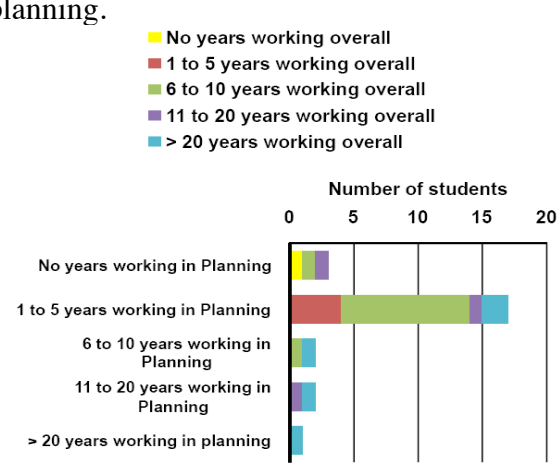


Figure 5
Work in planning compared to overall time in the workforce for graduates from the GSE Master of Environmental Planning

1.5 Implications of the student characteristics for the M Env Plan teaching program

It is evident that the diversity amongst students in the M Env Plan program in terms of their disciplinary specialisms from previous study, age on entry, nationality and professional work experience present both challenges and opportunities in the teaching program. Before identifying these it is appropriate to summarise the philosophy that underlies the M Env Plan in the context of all of the GSE postgraduate coursework programs.

1.5.1 "Specialists in interdisciplinarity"

The overarching aim of the GSE's coursework programs is to produce graduates who are able to work effectively in, indeed to lead inter-disciplinary teams, on environmental projects. Thus the different units[3] (subjects) that they study aim to provide them with knowledge and capabilities across the wide spectrum of disciplines that contribute to effective environmental planning or management. For example: environmental law, environmental economics, air and water quality, pollution control and waste management, and ecological processes; to name several. Many of the units are themselves interdisciplinary in nature, such as environmental impact assessment, coastal management and environmental decision making. In the M Env Plan program there are three specifically environmental planning units

In the context of students building their knowledge and capabilities in these many and different disciplinary and interdisciplinary units, the aim is not to produce specialists – many of the graduates bring disciplinary specific knowledge and capabilities from their prior studies; for example sciences (life, earth and physical), engineering and economics are typical undergraduate qualifications that the M Env Plan students bring to their environmental planning studies.

Rather the aim of the GSE's Master of Environmental Planning is to produce graduates with knowledge and capabilities across the broad range of disciplines that contribute to environmental planning – sufficient for them to be able to communicate effectively with specialists in these disciplines. And not only to communicate with them, but to know when it is appropriate to seek inputs from these specialists when addressing any particular environmental planning issue, and then to define clearly what is needed. Furthermore, having obtained such inputs from specialists they will be able to evaluate critically how these can most effectively contribute to the resolution of the issue. Such "specialists in interdisciplinarity" have been identified in the final report of the *International Commission on Education for Sustainable Development Practice* as a critical need if the complex challenges of sustainable development are to be met.[4]

This interdisciplinary emphasis in the M Env Plan is most significant as already there have been students with undergraduate qualifications in town planning and landscape architecture for example. In the future as students in Macquarie University's Bachelor of Planning graduate it is anticipated that some of these with specialist planning skills will then go on to do the program to build their capability to work in interdisciplinary teams on environmental planning issues.

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[3] "Units" at Macquarie University are the familiar "subjects" in other universities. The postgraduate coursework units in the GSE typically comprise the equivalent of 40 hours class time (lectures and workshops) and up to 120 hours of out-of-class work by students; many include field trips, and two are based on six-day field trips.

[4] The Earth Institute at Columbia University, ***International Commission on Education for Sustainable Development Practice***, Final Report, October 2008

1.5.2 Challenges and opportunities presented by diversity

Table 1 summarises some of the challenges and opportunities brought to the M Env Plan teaching program by the diversity of students' specialisms from previous study, age on entry, nationality and professional work experience.

TABLE 1 Some Challenges and Opportunities Presented by Diversity

	Challenges	Opportunities
Previous study	• Some students will always be lacking the knowledge and capabilities in any individual discipline in which others have studied. This is manifest in those units that are grounded in specific disciplines; for example "Environmental Economics", "Ecological Processes" and "Air and Water Quality". • Consequently the class activities and assessment tasks must meet the needs of students with widely disparate knowledge and capabilities.	• The diversity of disciplinary perspectives that different students bring to class discussions and workshops on environmental issues introduces them all to the interdisciplinarity needed to address environmental issues and broadens their own perspectives beyond individual disciplinary approaches. • The contributions of diverse disciplines to addressing environmental issues serves to focus students' learning on achieving environmental outcomes in the context of other desirable social and economic outcomes.
Ages	• Students of different ages bring different learning experiences and different learning styles that help or hinder current study.	• Sharing and seeing the 'enthusiasm of youth' and the 'wisdom of age' (though of course neither is age limited) in cooperatively working on problems is a worthwhile learning experience for current and future work.
Nationalities	• Some international students for whom English is not their preferred language, have significant difficulty in reading and writing material on complex issues. • Associated with this is the expressed concern by some domestic students that these students are unable to contribute satisfactorily to group projects.	• The international students can bring different experiences and important perspectives to addressing environmental issues; for example from developing countries or in the different regulatory regimes in North America or Europe. • Assessment tasks can be written so as to accommodate overseas students' desire to explore policy and issues in their own countries.
Work experience	• The proportion of students in a class with professional work experience is a significant determinant of what can be achieved in some class activities in some units.	• Students with little or no work experience can benefit from the perspectives grounded in practicality that those in professional work bring to class discussions and workshops.

1.6 Local focus and international perspectives

Associated with the fact that almost one third of M Env Plan students are from overseas an important issue is the appropriateness of the focus on NSW in the program's 'planning' units. The surveys of both the graduates and current M Env Plan students included a specific question asking for comment on the relevance of this for their current or future professional work in planning. The majority in both groups thought it extremely, highly or very relevant to their work; Figure 6.

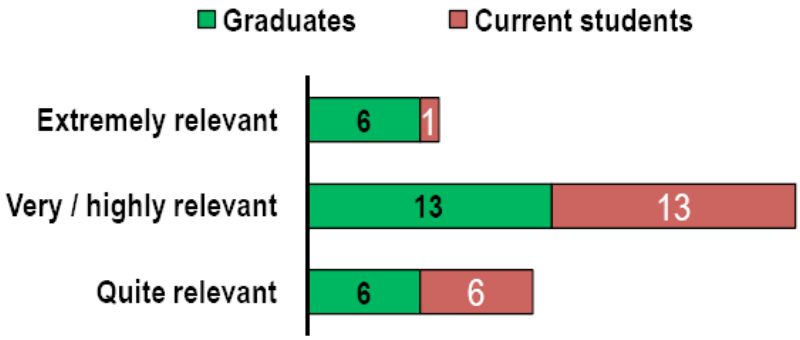

Figure 6
Relevance of the NSW focus for current students and for graduates from the Master of Environmental Planning

Only a few indicated that some treatment of other states and countries could be useful, and not many international students made comments here. However it is reasonable to suppose that in critically analysing and evaluating the NSW system – which is evidently most important for the majority who will work here – all students will gain the knowledge and capabilities needed to adapt to other jurisdictions, and to critically evaluate these as well.

> **In summary:** the diversity of the student body in the MEP program, and within this the difference composition of students from year to year in any one of the planning units, presents both challenges and opportunities for the academic staff and their teaching strategy; not least in being able to adapt the way essential content and capabilities are covered so as to maximize their students' learning.

2. Student numbers and enrolment trends

The Master of Environmental Planning is one of a large suite postgraduate coursework programs offered by the GSE. [5] With about 20 to 30 students enrolled each year over the seven years from 2003 through 2009 it has the second largest candidature after the Master of Environmental Management.

There is no clear trend of either increasing numbers or decreasing numbers over this period; nor are there clear trends in the numbers of new enrolments and students completing their studies; nor in the numbers graduating each year; Figure 7.

The majority of students are part time with a sizable minority of full time students; many of the latter are international students on a study visa that allows them only three semesters to complete the program. Nevertheless only a small percentage of the M Env Plan students complete their degree in the minimum three semesters and many take more than six semesters (that is, three years) some over five years; Figure 8.

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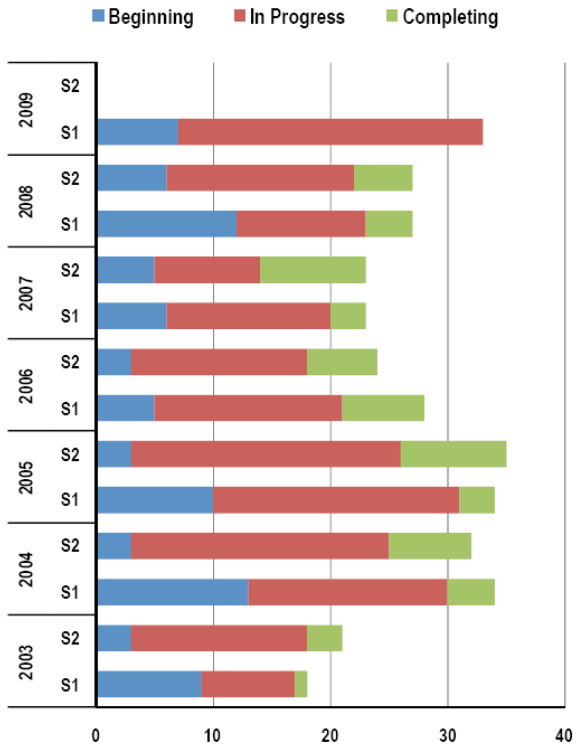
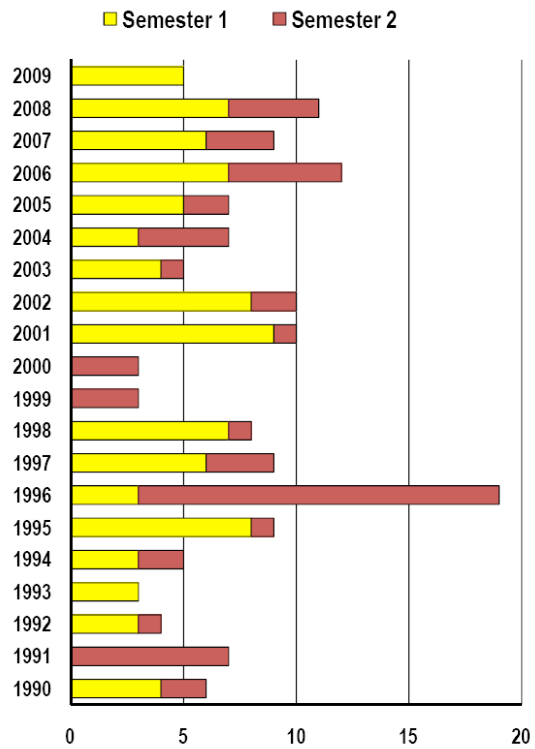
[5] The coursework 'Environmental' Masters programs offered by the GSE are in Management, Planning, Studies, Science, Sustainable Development, and Wildlife Management.



(b) Numbers of M Env Plan students enrolled



(b) Numbers of M Env Plan graduations

Figure 7
Master of Environmental Planning enrolments and graduations

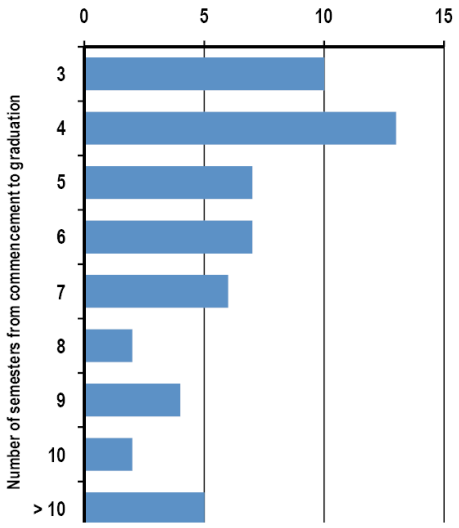


Figure 8
Times for completion for GSE M Env Plan graduates between 2003 and 2009

3. Study patterns

The PIA Visiting Board Requirements specify under §7 Academic Program a "brief description of … how subjects relate to each other in each year and from one year to the next." The diversity of the student body described in section 2, the enrolment patterns of students described in section 3, the large number of elective units available to students, and the scheduling of individual units within the GSE's overall coursework offerings all combine to make the study patterns of individual students highly variant.

This section describes the following features of the actual study patterns undertaken by M Env Plan graduates over the last seven years and the emerging patterns of current M Env Plan students:

- The numbers of M Env Plan students who have taken different units in their program.
- The frequency with which different units were taken in the first semester of study.[6]
- The stages in M Env Plan students' study when they took the planning units.[7]
- The participation of students in other GSE Masters programs in the three planning units.[8]

3.1 Participation in different units in the program

In common with all GSE Masters students[9], M Env Plan students are required to do four core units and two of the planning units[10]; a third planning unit is taken by many but is not required. Table 2 summarises the numbers of graduates and current students who have (already) done different units in their M Env Plan program.

TABLE 2 Completion of different units by M Env Plan students

Unit	2003 to 2009 Graduates (out of 56)	Current students (out of 35)
GSE 800 Attitudes to the Environment	56	29
GSE 800 Environmental Law and Policy	51	19
GSE 807 Environmental Measurement and Analysis	54	11
GSE 843 Environmental Decision Making	55	22
GSE 818 Environmental Planning	56	24
GSE 830 Sustainable Urban Regions[11]	42	18
GSE 816 Local Government Approval Process	27	8
Other Law Units	18	7
Management Units	136	20
Economics Units	71	33
Sustainability Units	26	19
Geography Units	30	14

6 Some of the core units were originally designed to be introductory to the whole program and, while not formally "prerequisite", it was thought desirable that students do them early in their program.

7 When a student takes a planning unit in relation to other units will determine to some extent what prior knowledge they bring to it and consequently impact on their learning in the planning unit; for example a student who has done GSE 801 Environmental Law and Policy ***before*** GSE 818 doing Environmental Planning will bring very different knowledge and capabilities to this unit than one who has not yet done GSE 801 Environmental Law.

8 The MEP students share all of their classes in all units with students in other MEP programs; this is in fact a significant advantage for all students as they meet different perspectives on issues and also build relationships with (future) colleagues in interdisciplinary networks.

9 Excepting students in the Master of Sustainable Development whose entry requirements include prior professional experience in the area of Sustainable Development.

10 In some rare exceptional circumstances, students may be granted exemption or advanced standing in one of these required units.

11 This was not required for some graduates who commenced study before 2003.

3.2 *Units taken in students' first semester of study*

The unit GSE 843 Environmental Decision Making was originally designed to be taken in students' first semester of study as an introduction to all that would follow[12]. As indicated in footnote 10, it is obviously beneficial for students to do GSE 801 Environmental Law and Policy before doing GSE 818 doing Environmental Planning. Whatever the intentions an analysis of the study patterns actually followed by the 56 M Env Plan graduates from 2003 through 2009 shows that there is no clear and common sequence in which they undertake units; Figure 9.

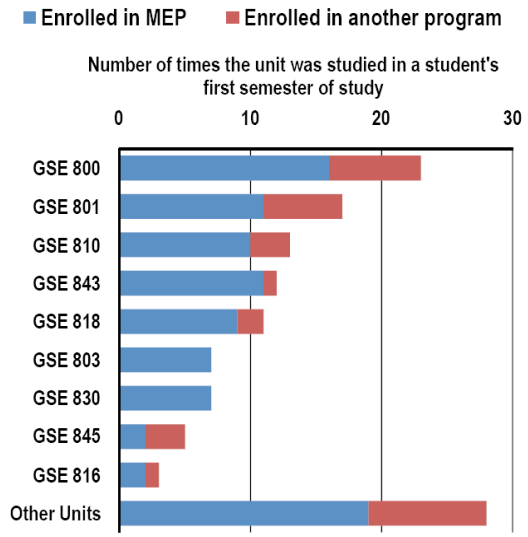


Figure 9
Frequency of taking different units in the first semester of study by GSSE M Env Plan graduates between 2003 and 2009
[The "enrolled in another program" group comprises students who transferred from another GSE]

3.3 *The stages in M Env Plan students' study when they took the planning units*

The greater number of graduates from the M Env Plan program took the three planning units midway through their studies with about equal numbers doing them in the first four units and in the last four units; Figure 10.

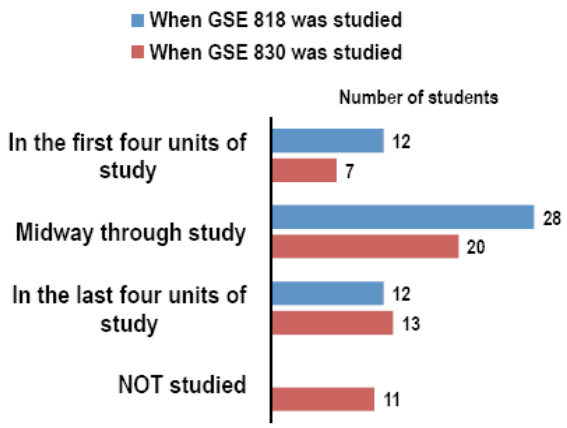


Figure 10
Stages of study when GSE M Env Plan graduates took planning units
[GSE 830 was not required if enrolled into the program before 2003]

3.4 *Participation of students from other GSE programs in planning units*

One of the significant features of studying in the GSE is the mix of students from the different postgraduate programs in all of the units – students very often report on the great benefit of this opportunity for interaction between environmental areas. This has been the case for the environmental units with almost half their enrolments from 2003 through 2009 being students in programs other than the M Env Plan; Figure 11.

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[12] It can of course be argued that it could also be suitable as a summative unit in which all preceding learning was integrated into the process of environmental decision making.

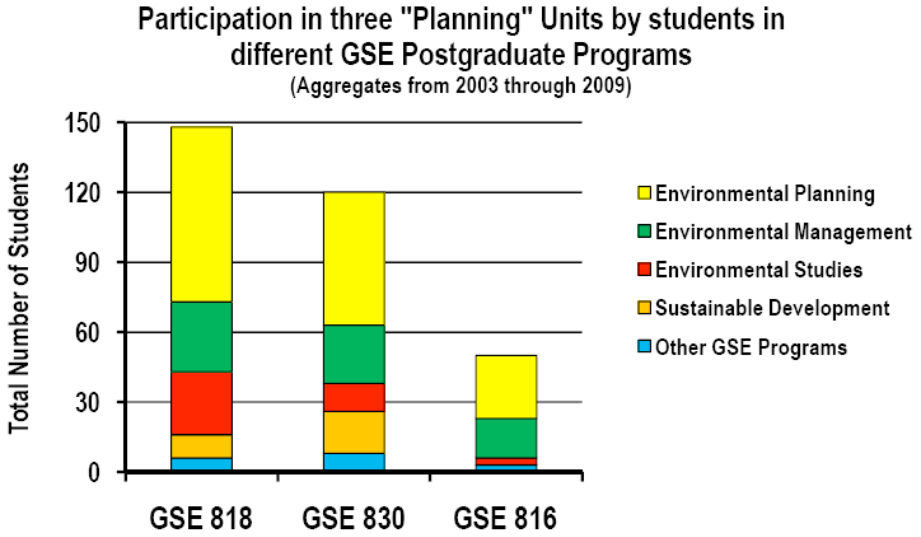

Figure 10
Participation in "Planning" Units by students in different GSE Postgraduate Programs
[GSE 817 "Urban Growth Management" was superseded by GSE 830 "Sustainable Urban Regions" after Semester1, 2003; in this semester only one of the 10 students in GSE 817 was doing the M Env Plan Program]

3.5 Planning students' study programs and assembling a professional portfolio

It is clear that for many reasons M Env Plan graduates did not, and current students do not, choose a common pattern of study in terms of a determined sequence of units[13]. In this situation the planning staff in the GSE introduced several years ago the maintenance of a portfolio by their students. The portfolio was for students to keep a record of their knowledge and professional skills development over the period of their studies and in doing this to integrate their learning in different units, at whatever stage they were taken.

In the surveys of the graduates and current students there was strong support for this concept with about 60% indicating it they would like, or would have liked, to develop a portfolio.[14] In addition there was an even stronger indication of their desire to meet with planning staff[15] to design a study pattern best suited to their professional needs.
The actual implementation and management of both of these presents a real challenge within the university's current enrolment and assessment procedures.

4. Other feedback from students

Members of the GSE staff routinely seek feedback from students in all units so as to continually improve their delivery and the learning experiences of students. In addition to this unit-based feedback and ongoing development the School also undertakes regular reviews of whole programs and as part of these both graduates and current students are surveyed for their feedback on specific matters.

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[13] Such a predetermined sequence could be enforced by a system of pre- and co-requisites as is the case in many undergraduate programs where the numbers and status (full-time or part-time) of students make it feasible.

[14] Such a portfolio is a program activity as distinct from a unit activity; as such it has not been connected to any particular unit and so there has been no mechanism for staff to mentor students in its preparation nor to for it to be assessed when completed.

[15] The introduction several years ago of online enrolment throughout the University has resulted in some students not being able to contact staff during the process to discuss the possible study patterns and choice of units in their program.

As already described in sections 1, 2 and 3 above, students who graduated from 2003 through Semester 1, 2009 and current students in the program were surveyed on a number of matters relating to their study in the programs. This section summarises the findings of the two surveys in relation three other questions:

- Whether they knew the M Env Plan was accredited by the Planning Institute of Australia (PIA) when they began their study in the M Env Plan and how important this accreditation is for them.
- The sector in which they are working, their position or main responsibility, and the sort of work they are doing.
- The two most important issues that they believe planners now or will face, and the capabilities they think planners will need to face these.

4.1 The importance of accreditation of the M Env Plan program by the PIA

Graduates and current students were asked did they know when they enrolled that the M Env Plan was accredited by the PIA and to indicate how important to them this accreditation was; the graduates were also asked to indicate whether they are members of the PIA. Table 3 summarises their responses.

TABLE 3 Responses of M Env Plan graduates and students to PIA accreditation

	Number of responses	**Knew of PIA accred'n**	**Importance of PIA accreditation**			**Member of PIA**
			Extremely or very important	Important or reasonably important	Not important	
Graduates	25	20 (80%)	18 (76%)	2 (8%)	4 (16%)	11 (44%)
Current students	33	25 (76%)	21 (67%)	7 (21%)	0	NA

These are interesting data in a number of ways:

- They indicate a good knowledge amongst students, before they begin their studies in the M Env Plan, of the fact that the M Env Plan is accredited by the PIA.
- A good majority of graduates and current students say that this accreditation by the PIA is extremely or very important to them – indeed in their comments a number indicated that this was the reason they chose to do the Macquarie course in preference to those at other universities, including overseas students.
- Notwithstanding the seen importance of accreditation of the award program by the PIA less than half of the graduates are in fact now members of the PIA – this includes some who had said the accreditation was very important.

4.2 Work and associated responsibilities

The current employment of graduates and current students has been described in section 1.4 above in the context of the diversity of the knowledge, capabilities and experience that students bring to their study in the M Env Plan. As described there, of the 45 survey respondents who are currently working 36% are working in each of local government or in the private sector, 24% in State government and 4% in Federal government.[16]

Across all of the sectors and the departments in which the graduates and students are working, the things they are doing and their responsibilities are many and varied, including:

[16] These figures are easily calculated from the data presented in Figure 4.

4.2.1 In the Australian federal Government

- Communication with stakeholders on planning issues.
- Consultation to identify issues and indicators for the SoE report.
- Strategic assessment of Sydney Growth Centres.

4.2.2 In State Government

- GIS assessment of coastal lands to prioritise areas of high conservation value.
- Commenting on State planning reforms, dealing with major land releases.
- Providing advice to LGAs on preparing LEPs.
- Testing the adequacy of environmental impact assessments.
- Assessing major infrastructure projects under Part 3A of the EP&A Act.

4.2.3 In Local Government

- Assessing development applications.
- Mentoring trainees and junior staff.
- Writing submissions and developing policy (within the LGSA).
- Construction assessment for public spaces.
- Stormwater asset management.
- Land use planning and development control.
- Research into different levels of government plans, policies and strategies to inform a regional strategy team.

4.2.4 In Private industry or commerce

- Preparing development applications and statements of environmental effects.
- Strategic review of development sites.
- Assisting LG Councils in court work.
- Environmental impact assessment and auditing of compliance with consent conditions.
- Traffic impact assessment and review of strategic bus corridors.
- Reports for LG Councils and the Land and Environment Court.
- Strategic planning for the CBD to Parramatta Metro.
- Integrated land use and transport strategy for the Hills district.
- Coordination of legal matter and policy development.

4.3 Issues facing planners and the needed capabilities

The graduates and current students were asked to identify the two most important environmental issues that they believe do now or will in the future face environmental planners. The responses were diverse ranging from global issues such as climate change to local concerns such as incorporating environmental impact assessments into everyday planning activities. The corresponding capabilities mentioned were also many and diverse, and sometimes identified additional issues rather than the capabilities that might be needed to address them.

4.3.1 Issues

The most frequently identified issues were sustainability[17] (40% of graduates; 55% of current students); climate change (36% of graduates; 33% of current students) and the conflict between environmental outcomes and economic factors (16% of graduates; 15% of current students). Many other issues – some rather esoteric – were mentioned only once or twice.

[17] "Sustainability" includes dealing with increasing population.

4.3.2 Capabilities

The most frequently mentioned capabilities were communication and negotiation skills (28% of graduates; 18% of current students); working in interdisciplinary teams (24% of graduates); having a holistic or strategic or 'futures' view (20% of graduates) and adaptability or flexibility (20% of graduates). Many other capabilities – again some rather esoteric ones – were mentioned only once or twice.

Full transcripts of all issues and the corresponding capabilities have been taken; these warrant more thorough analysis and then more extensive research on the capabilities that planners will need in the future[18]. When a coherent set of professional capabilities for professional planners has been developed these will inform ways in which the M Env Plan program can be developed in the future.

5. Strategic directions in postgraduate planning education

The results of the research show that the GSE M Env Pl students have prior qualifications in science or engineering, with significant proportions with qualifications in environmental / resource management or architecture. This is an important guide for teachers in student-centred skills and knowledge development. It can also assist with marketing decisions and promoting the program in a more targeted way. The results also suggest that students are likely to have more familiarity from their previous training with science and environmental awareness than planning. This places an emphasis on covering all the planning content comprehensively.

The age distribution of current students is interesting and has some implications for current teaching approaches. The distribution shows a bimodal split which indicates a class comprising both students with little life experience and a second group with a significant life experience. If the older students are also experienced in a field related to planning, then the content of the teaching will have to range from covering the basic knowledge and skills through to a significant critically challenging component.

One third of students are international (13% from China) and this has implications for language skills and also for the focus NSW and Australian specific planning, policy and law content. Significant effort needs to me made to understand and provide flexibility for students who require an international knowledge base in planning – particularly if they plan to practise overseas and not in Australia[19]. Alternatively, foreign students planning to stay in Australia to practise planning must have the required skills and local knowledge to practise to acceptable professional standards here.

In discussion with graduates it is evident that students particularly appreciate the flexibility in the GSE M Env Plan program and the multidisciplinary student composition of classes. This has some interesting considerations for PIA as they struggle with determining a balance in their educational policy between core planning units and optional disciplinary units; and also the desirability of keeping planners as a distinct body of professionals separate from other disciplines. Increasing the purely 'planning' content at the expense of reducing the current multidisciplinary, postgraduate and environmental emphasis in the GSE's M Env Plan program may possibly undo the major benefits offered in this program and clearly appreciated by the students themselves.

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[18] A similar diversity of both issues and corresponding capabilities for climate change adaptation has been found also in some of the early research in a project being undertaken by staff in the GSE on "Climate Change Adaptation Skills for Professionals" funded by the Australian Government Department of climate Change. The whole question of professional capabilities, for planners and more widely for others working in the environmental field, is one needing continued research and creative thinking.

[19] One way in which this flexibility can be achieved is through assessment tasks which allow international students to explore and evaluate policies and practices in their own country in the context of NSW policies and practices.

The study found that nearly all graduates (and half of the current students) are working in planning and are spread across all sectors of government and the private sector with the two largest groups being in local government and the private sector. The findings also suggest that many of the M Env Plan students are doing the program prior to moving, or having already moved from, other work into planning; that is, a career change into the planning area. The program meets well the needs and expectations of these students.

There are currently a number of issues of growing concern to environmental planners and these must be and embedded in all units so that students can broaden their knowledge and build their capabilities for the challenges that will face planners in the future. The major issues identified in the surveys were sustainability, climate change and the conflict between environmental outcomes and economic factors. Generic and planning-skills based capabilities recognized by graduates (now practising planners) as most important are communication and negotiation skills; working in interdisciplinary teams, having a holistic or strategic or 'futures' view and adaptability or flexibility. These continue to be developed within all of the GSE's units.

In the surveys of the graduates and current students support was shown for the development though their studies of a capabilities portfolio and an even stronger indication of their desire to meet with planning staff to design a study pattern best suited to their professional needs. The actual implementation and management of both of these presents a real challenge. Concerning meeting with planning staff, the university's current enrolment procedure is mostly online and it is often difficult for effective consultation to take place before commencing the program. Concerning the development of a capabilities portfolio there is at present no simple way in which this might be given 'assessment credit' over the whole period of students' study – which can sometimes be more than four or five years for part time students. Class time is now taken up with organizing times to profile students and offer learner-focused guidance through survey and dialogue techniques to increase learning. The identification of these two needs is seen as the single most important outcome of this research and the effectiveness of measures to address them will be measured over the coming years.